

A NEW SPECIES OF *SCAPHINOTUS*
FROM THE OLYMPIC PENINSULA
(COLEOPTERA: CARABIDAE)

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ABSTRACT

A new species of *Scaphinotus* is described, illustrated, and compared with *S. angusticollis olympiae* (Van Dyke). The type locality is Klahowya, along the Soleduck River near Sappho, Clallam Co., Washington. The subgenus *Stenocantharis* is combined with *Brennus*.

In a preceding note (Perrault, 1972) on some interesting records of Carabidae from the Olympic Peninsula, I did not write about a particular locality pending completion of the morphological work on *Scaphinotus* specimens found there. Indeed the most interesting specimens I collected in the Olympic Peninsula in 1967-68 were a series of *Scaphinotus* found in dense humid rain forest under rotten logs on the ground covered with mosses and in very shady places, along the Soleduck river at the location called Klahowya near Sappho in the NW part of the peninsula. Other species collected at this locality were *Nomius pygmaeus* (Dej.), *Pterostichus herculaneus* (Mann.), *P. amethystinus* (Mann.), *P. algidus* (LeC.), *P. crenicollis* (LeC.), *Harpalus cordifer* (Notm.), and *Agonum ovipenne* (Mann.).

The specimens of *Scaphinotus* collected belong to 2 different species. One of these (8 specimens) was *Scaphinotus* (*Stenocantharis*) *angusticollis olympiae* (V.D.). The other (4 specimens) was believed at first to be *Scaphinotus johnsoni* (V.D.), but further studies showed that there were strong differences between the description of *S. johnsoni* and the specimens at hand. The elytral sculpture was described by Lindroth (1961), and Gidaspow (1968) as similar to that of *S.a.olympiae*, the main differentiating feature being the length of the labrum.

To the contrary, my specimens have very distinct, fine and regular striae though not so regular on the side of the elytra. All the characters show that the specimens belong to subgenus *Brennus* and by using Gidaspow's (1968) monograph of that group, it is possible to note other differences: shape of pronotum, prosternal process, and more particularly of the penis. I am therefore convinced that my specimens belong to a species not yet described, although closely related to *S. johnsoni*.

Scaphinotus klahowya Perrault, NEW SPECIES

HOLOTYPE: one male from Klahowya, near Sappho (Clallam Co.), Olympic Peninsula (Washington), G. G. Perrault, Aug. 1967, [author's collection].

ALLOTYPE AND PARATYPES: 3 females from the same locality, 2 (including allotype) Aug. 1967; one Aug. 1968. [National Museum of Natural History, Washington, D.C.].

Length: 17mm; Black with metallic hue, blue black on head and pronotum, violet on elytra with bright blue green color in the marginal groove; dull from strong microsculpture which is isodiametric on head, made of transverse mesh on pronotum, and isodiametric almost granulate on elytra except in lateral grooves which are shining; labrum with long lobes, length equal to width; clypeus without lateral furrows but with a median longitudinal groove in anterior part, longer in the female; seta orbitalis present; frons transversely wrinkled, continuous with clypeus; genae widened laterally, notched near anterior margin of eye.

Pronotum (Fig. 1) maximum width twice width at base (1.7 in *S.a.olympiae* (Fig. 2)); one seta toward middle of lateral margin, but no seta toward hind angle; base straight, basal margin complete, basal transverse impression almost straight, lateral ones little impressed; lateral bead strong and lateral margin broadly reflexed in anterior half; anterior marginal bead strong and anterior transverse impression well developed; whole surface transversely wrinkled.

Elytra depressed with 18 fine, very distinct, punctate striae, the 19th stria irregular at the edge of the wide, irregularly sculptured, shining marginal groove, where umbilicate punctures lay in deep foveae; lateral margin reflexed, more strongly so near apex; base margined and narrow, shoulder angulate; only striae 1,5,7,8,9 reach base, the others interrupted before, particularly 2 and 3 (Fig. 3); apices attenuated but rounded at tip;

All appendages dark, antennae from segment 4 brownish and pubescent; tarsi with setae above; anterior tarsi of male narrowly dilated, 3 segments with papillae beneath.

Prosternal process rounded, unmargined, with shallow fovea in center (Fig. 4); pygidium with 1 seta each side in male, 2 in female.

Penis long and narrow (Fig. 5 & 6), dilated in apical half, parallel in basal half; ventral margin straight, apex bent ventrally, broadly rounded. The name is derived from the type locality.

DISCUSSION

The color is very similar to that of *S.a.olympiae* found in the same locality, but the shorter labrum, narrower pronotum, and shallow striae easily distinguish this species from *S. klahowya*. With *S.a.olympiae* and *S.johnsoni* it appears that *S.klahowya* will form a group of related species in the Olympic Peninsula that could have evolved from the same stock. *S.klahowya*, as well as *S.johnsoni* (Van Dyke-1944), will be a transitional form between the 2 subgenera *Stenocantharis* and *Brennus*. I believe that the differences given between those 2 subgenera, when compared with the similarity of the 3 species within the species group defined above, do not justify keeping them distinct. Thus the key of the subgenera of *Scaphinotus* by Ball (1960) must be modified as follows:

7. Anterior tarsi of male broadly dilated; range: SE Wash. NE Oreg.; rare *Pseudonomareetus manni* (Wick.)
- 7'. Anterior tarsi of male narrowly dilated; range: California to S. Alaska and Aleutian islands s.g. *Stenocantharis* (sensu novo)

As a consequence and considering *S.marginatus* (Fisher) we can distinguish the 4 species of the subgenus found in the Olympic Peninsula as follows:

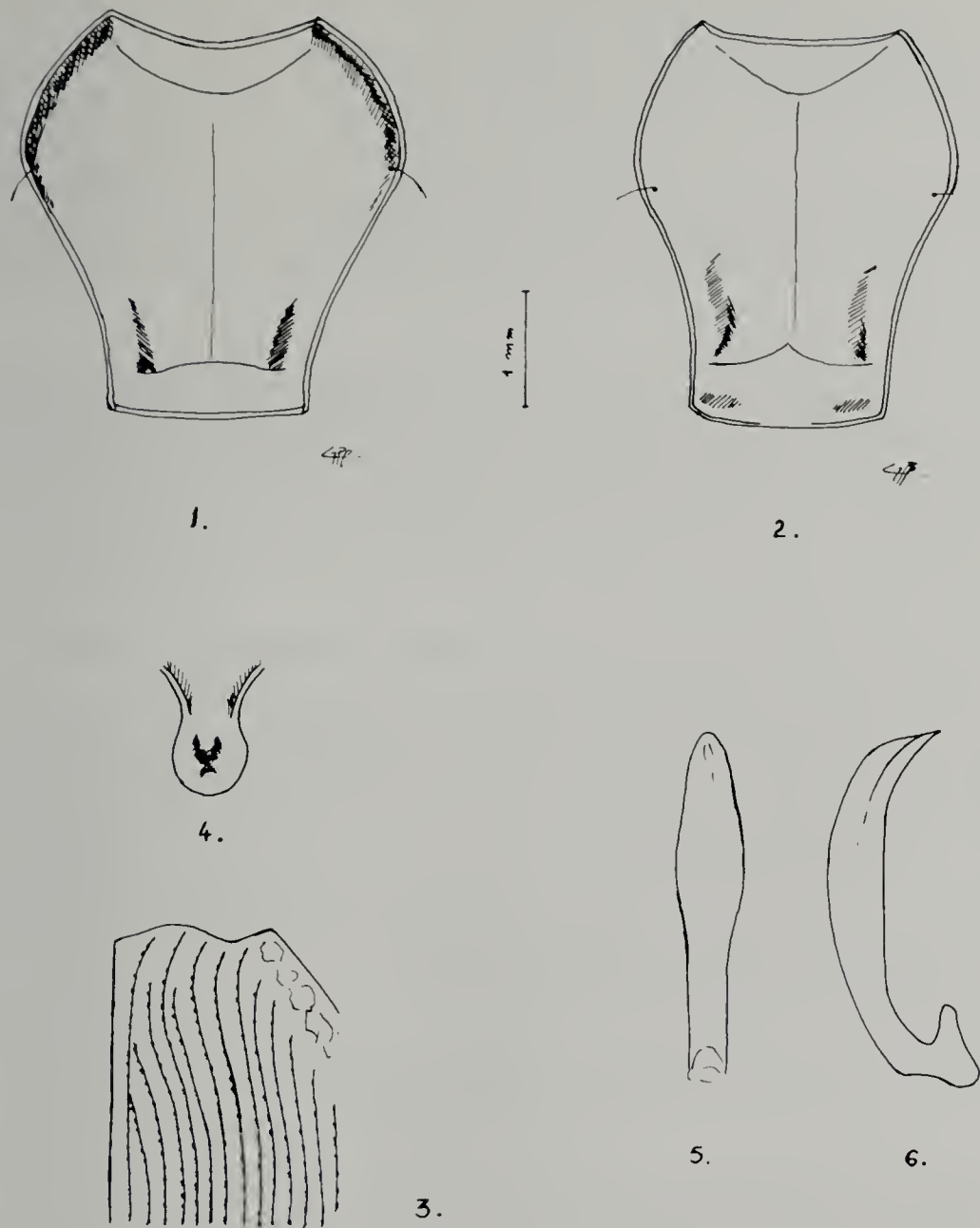


Fig. 1,3-6: *Scaphinotus klahowyaе* n.sp.: holotype: 1) pronotum, 3) base of right elytron, 4) prosternal process, 5) penis, dorsal view, 6) penis, left lateral view.

Fig. 2. *S. a. olympiae* (Van Dyke): pronotum of specimen from same locality.

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|--------|--|-----------------------------|
| 1. | Shining, less than 18 striae wavy on side, tending to form elongated tegulae | <i>marginatus</i> |
| 1'. | Dull, heavily microsculptured, 18/20 striae | <i>johnsoni</i> group.....2 |
| 2(1'). | Striae very distinct, fine and regular, easy to count | <i>klahowyaе</i> |
| 2'. | Striae shallow, difficult to count | 3 |
| 3(2'). | Ratio length/width of labrum about 0.6..... | <i>olympiae</i> |
| 3'. | Ratio length/width of labrum about 1.0 | <i>johnsoni</i> |

As another consequence, the key of Gidaspow (1968) must be modified for the introduction of *S.angusticollis* and *S.klahowyaе*, and as there is some ambiguity in couplet °5 about the number of elytral striae, I suggest modifying it as follows:

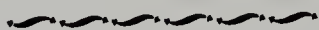
STENOCANTHARIS (Gistl. 1858)

- A Very long legged; anterior side of profemora without setae; soft hairs between the teeth of the lacinia of the maxilla long; 20 shallow striae; dull *angusticollis* (Mann.)
 Short legged; anterior side of profemora with setae; soft hairs between the teeth of the lacinia of the maxilla short 1
5. More than 20 striae or lines of punctures, at least in apical half of elytron 6
 20 or less striae 7
16. Seta orbitalis absent; anterior tarsi of male with papillae beneath on 2 segments only *striatopunctatus* (Chaudoir)
 Seta orbitalis present; anterior tarsi of male with papillae beneath on 3 segments 17
17. Pronotum distinctly wider than long; elytral striae wavy on side, difficult to count *ventricosus* (Dejean)
 Pronotum about as long as wide; elytral striae regular toward side, easy to count 18
18. Black, ventricose, shiny; pronotum parallel at base; 17/18 striae; south California *crenatus* (Mots.)
 Dull black with metallic hue and elytral margin brightly metallic; 19 striae; Olympic Peninsula *klahowyae* n.sp.

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BOOK NOTICE: *This living earth*, by David Cavagnaro. 1972. The American West, 599 College Ave., Palo Alto, CA 94306. 8½ × 11", 191p., 112 color photos; cloth, \$17.50.

One of the finest collection of natural history photos I have seen, maintaining the high quality already established by American West. The author-photographer majored in entomology and this influence is obvious in the fine photos (for which both photographic & scientific data are provided). He was honored by one of our members who dedicated a new beetle to him (*Ataenius cavagnaroi* Cartwright) from the Galapagos.—R. E. Woodruff